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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,801	07/28/2003	James J. Fallon	8011-8 CON	4534

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EXAMINER

PARK, ILWOO

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,801

Applicant(s)

FALLON, JAMES J.

Examiner

Ilwoo Park

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The preliminary amendment filed on 7/28/2003 has been entered. Claims 21-30 have been cancelled. Claims 1-20 are presented for examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-31 of U.S. Patent No. 6,601,104 contain every element of claims 1, 2, 10, 16, and 17 of the instant application and as such anticipate claims 1, 2, 16, and 17 of the instant application. "A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim.

Claims 1-16 of U.S. Patent No. 6,604,158 contain every element of claims 1-9 and 16-20 of the instant application and as such anticipate claims 1, 2, 16, and 17 of the instant application. "A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. *In re Longi*, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); *In re Berg*, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a

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holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). "ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Court, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 10, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohkubo et al., US patent No. 4,593,324.

As to claims 1 and 16, Ohkubo et al teach a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing accelerated data storage, said method steps comprising:

receiving [col. 2, line 60-col. 3, line 8] a digital data stream at an input data transmission rate [40 M bits/sec] which is greater than a data storage rate [8 M bits/sec] of a target storage device [auxiliary memory device 13 in fig. 2];

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compressing [by data compression/expansion device 6 in fig. 2] the digital data stream at a compression rate that increases the effective data storage rate of the target storage device; and

storing the compressed digital data stream in the target storage device.

5. As to claims 2 and 17, Ohkubo et al teach the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate [col. 3, lines 3-8].

6. As to claim 10, Ohkubo et al teach a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing accelerated retrieval of stored data, said method steps comprising:

retrieving [col. 3, lines 35-58] a compressed digital data stream from a target storage device [auxiliary memory device 13 in fig. 2] at a rate equal to a data access rate [8 M bits/sec] of the target storage device; and

decompressing [by data compression/expansion device 6 in fig. 2] the compressed data at a decompression rate that increases [40 M bits/sec] the effective data access rate of the target storage device.

7. Claims 1, 2, 10, 16, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kitade et al., US patent No. 6,590,609.

As to claims 1 and 16, Kitade et al teach a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to

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perform method steps for providing accelerated data storage, said method steps comprising:

receiving [col. 2, lines 34-44] a digital data stream at an input data transmission rate which is greater [col. 1, lines 28-42] than a data storage rate of a target storage device [PC card 11 in fig. 1];

compressing [CODEC 5 in fig. 1: col. 5, lines 32-39] the digital data stream at a compression rate that increases the effective data storage rate of the target storage device; and

storing the compressed digital data stream in the target storage device.

8. As to claims 2 and 17, Kitade et al teach the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate [col. 2, lines 40-44].

9. Claims 1, 2, 16, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Rynderman et al., US patent No. 5,621,820.

As to claims 1 and 16, Rynderman et al teach a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing accelerated data storage, said method steps comprising:

receiving [video source 12 in fig. 2] a digital data stream at an input data transmission rate which is greater than a data storage rate [col. 3, lines 58-61] of a target storage device [disk storage device 14 in fig. 2];

compressing [col. 3, lines 8-22] the digital data stream at a compression rate that increases the effective data storage rate of the target storage device; and

storing the compressed digital data stream in the target storage device.

10. As to claims 2 and 17, Rynderman et al teach the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate [col. 3, line 62-col. 4, line 3].

11. As to claim 10, Rynderman et al teach a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing accelerated retrieval of stored data, said method steps comprising:

retrieving [col. 3, lines 8-22; col. 3, lines 30-34] a compressed digital data stream from a target storage device [auxiliary memory device 13 in fig. 2] at a rate equal to a data access rate [8 M bits/sec] of the target storage device; and

decompressing [by data compression/expansion device 6 in fig. 2] the compressed data at a decompression rate that increases [40 M bits/sec] the effective data access rate of the target storage device.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 3-9, 11-15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al., US patent No. 4,593,324 in view of Chui et al., US patent No. 5,604,824.

Compressing method can be in both lossy and lossless or in either lossy or lossless;

As to claims 3, 11, and 18, Ohkubo et al teach an image processing device [printer in col. 1, lines 37-37] receiving a digital data stream and performing compressing/decompressing the digital data stream; however, Ohkubo et al do not expressly disclose performing lossy data compression/decompression.

As to claims 4, 12, and 19, Ohkubo et al do not expressly disclose performing lossless and lossy data compression/decompression.

Chui et al teach an image processing device [printer] receiving a digital data stream and performing compressing/decompressing the digital data stream in lossy [col. 7, lines 1-13] and in both lossy and lossless [col. 2, lines 17-45; col. 4, lines 30-32]. Therefore, it would have been obvious to one of ordinary skill in the art of data compression/decompression at the time the invention was made to implement the Chui et al's teaching of lossy compression or lossless and lossy data compression/decompression in order to increase flexibility in compression/decompression in case that Ohkubo et al have only one lossless method for compressing/decompressing the digital data stream.

As to claims 5, 13, and 20, Ohkubo et al teach an image processing device receiving a digital data stream and performing compressing/decompressing the digital

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data stream; however, Ohkubo et al do not explicitly teach reading a first parameter that is indicative of a compression/decompression type to be applied to the input digital data stream and selecting at least one allowable encoder based on the first parameter. Chui et al teach an image processing device receiving a digital data stream and performing compressing/decompressing the digital data stream by at least one allowable encoder selected based on a read first parameter that is indicative of a compression/decompression type to be applied to the input digital data stream [col. 16, lines 20-30]. Therefore, it would have been obvious to one of ordinary skill in the art of data compression/decompression at the time the invention was made to implement the Chui et al's teaching of performing compressing/decompressing the digital data stream by at least one allowable encoder selected based on a read first parameter that is indicative of a compression/decompression type to be applied to the input digital data stream in order to improve a compression/decompression speed or ratio [Chui et al: col. 15, lines 39-49].

As to claims 6 and 14, Chui et al teach the compression/decompression type is one of lossless data compression/decompression, lossy data compression/decompression, and a combination thereof [col. 2, lines 17-45].

As to claim 7, Chui et al teach the input digital data stream comprises a plurality of data blocks and wherein each data block has a first parameter associated therewith indicative of a compression type to be applied to the data block [col. 36, lines 39-42].

As to claims 8 and 15, Chui et al teach reading a second data parameter that is indicative of an amount of information loss that is permissible, if lossy data compression/decompression is selected [col. 9, lines 26-30; col. 9, lines 61-65].

As to claim 9, Chui et al teach the first and second parameters are located within a header of the data block [col. 36, lines 39-42].

14. Claims 5, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al., US patent No. 4,593,324 in view of Wakana, Japanese patent application publication No. 9-188009.

As to claims 5 and 7, Ohkubo et al teach an image processing device [printer in col. 1, lines 37-37] receiving a digital data stream [e.g., binary data in col. 1, lines 8-10] and performing compressing/decompressing the digital data stream; however, Ohkubo et al do not explicitly teach reading a first parameter that is indicative of a compression/decompression type to be applied to the input digital data stream and selecting at least one allowable encoder based on the first parameter.

Wakana teaches an image processing device [e.g., laser beam printer 21 in fig. 2] receiving a digital data stream [at host interface 2 in fig. 1] and performing compressing/decompressing [by printer controller 1 in fig. 1] the digital data stream; specifically, Wakana teaches the received digital data stream that could be not only a binary data type but also a plurality of other types of data [e.g., an alphabetic data, a multiple-value data, etc.; SA5, SA7, SA9 in fig. 3] by at least one allowable encoder selected [from a plurality of preset compression method stored in a ROM 4] based on a read first parameter [by a CPU 3 having a data kind discriminating function analyzing a command of received data] that is indicative of a compression/decompression type [e.g., approach 1 for an alphabetic data, approach 2 for a multiple-value, approach 3 for a binary data; SA6, SA8, SA10 in fig. 3] to be applied to the input digital data stream. Therefore, it would have been obvious to one of ordinary skill in the art of data

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compression/decompression at the time the invention was made to combine the teachings of Ohkubo et al and Wakana because they both teach an image processing device receiving a digital data stream and performing compressing/decompressing the digital data stream and the Wakana's teaching of receiving a plurality of types of digital data stream and type specific compressing/decompressing by reading a parameter that is indicative of a compression/decompression type to be applied to the input digital data stream and selecting at least one allowable encoder based on the first parameter would increase adaptability for the image processing device of Ohkubo et al capable of receiving a plurality of different types of digital data stream and compressing/decompressing accordingly.

As to claim 7, Wakana teaches the input digital data stream comprises a plurality of data blocks and wherein each data block has a first parameter associated therewith indicative of a compression type to be applied to the data block [CPU 3 having a data kind discriminating function analyzing a command of received data including an alphabetic data, a multiple-value data, and a binary data].

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (571) 272-4155. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ILWOO PARK
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Ilwoo Park', written over the printed name.

Ilwoo Park

March 14, 2005